| Ind | ex of | Clain | าร |
|-----|-------|-------|----|
|     |       |       |    |

| Application/Control No. | Applicant(s)/Patent under Reexamination |  |
|-------------------------|---|--|
| 10/720,799              | HANNA ET AL.                            |  |
| Examiner                | Art Unit                                |  |
| Alex Liew               | 2624                                    |  |

|   | √ | Rejected |
|---|---|----------|
| İ | = | Allowed  |

| _ | (Through numeral)<br>Cancelled |
|---|--------------------------------|
| ÷ | Restricted                     |

| N | Non-Elected  |
|---|--------------|
| 1 | Interference |

| A | Appeal   |
|---|----------|
| 0 | Objected |

| Cla         | aim  |  |          |  |  | Date     | •  |  |  |                |   |
|-------------|--|--|----------|--|--|----------|--|--|--|----------------|---|
| Final       | Original   | 5/13/07                                  | 12/31/07 |  |  |          |  |  |  |                |   |
|             | 1  | 1  | 1        | ┢  | t  | _        | $\neg$   | _  |  |                |   |
|             | 2  | ファ | 7777     |  |  |          |  |  |  |                |   |
|             | 3  | 1  | V        |  |  |          |  |  |  |                |   |
|             | 5  | 1  | V        |  |  |          |  |  |  |                |   |
|             | 5  | 1  |          |  |  |          |  |  |  |                |   |
|             | 6  | 1  | 1        | ·  |  |          |  |  |  |                |   |
|             | 6<br>7<br>8<br>9   | 1  | 7        | _  | L  |          |  |  |  |                |   |
|             | 8  | 1  | 1        | L  | _  | L        |  |  |  |                |   |
|             | 9  | V  | 7 7      | _  | <u> </u>   |          |  |  |  |                |   |
|             | 10   | V  | V        | _  | _  | _        |  |  |  |                |   |
| L           | 11   | ١V                                       | V        | L.   | <u> </u>   |          |  |  |  | _              |   |
|             | 12   | \ \ \                                    | Y        | ┞  | ⊢  |          | -  |  |  |                |   |
|             | 13   | V  | 777777   | ⊢  | 1  |          |  |  |  | -              |   |
| <u> </u>    | 14   | V  | 7        | ⊢  | ├-   | _        |  |  | $\vdash$   | _              | ļ |
| <u> </u>    | 15   | V  | 7        | ⊢  | <u> </u>   | <u> </u> |  |  | _  | _              |   |
| <u> </u>    | 17   | 1  | 1        | ├─   | ļ  | -        |  | •  |  | -              |   |
|             | 18   | J  | 1        | ├  | ┢  | _        |  |  |  | $\vdash$       |   |
| <u> </u>    | 10   | 1  | J        | <del> </del>                                     | ╁  | ├-       | H  |  | _  | _              |   |
| <u> </u>    | 20   | 6  | J        | $\vdash$   | -  | ┢        | _  | _  | _  | $\vdash$       |   |
| -           | 21   | J  | 1        | $\vdash$   | ╁  | ├─       | $\vdash$   |  | -  | $\vdash$       |   |
|             | 22   | ij                                       | j        |  | ┢╌   | -        | <del>                                     </del> | -  |  | $\vdash$       |   |
| <b>-</b>    | 23   | Ì  | す        | <del> </del>                                     | <del>                                     </del> |          | Н  | _  | _  | $\vdash$       |   |
| -           | 24   | Ì  | Ì        | <del>                                     </del> | <u> </u>   |          |  | -  | $\vdash$   | $\vdash$       |   |
|             | 25   | 1  | 1 1 1    | $\vdash$   |  |          |  | _  |  | $\vdash$       |   |
|             | 10<br>11<br>12<br>13<br>14<br>15<br>16<br>17<br>18<br>19<br>20<br>21<br>22<br>23<br>24<br>25<br>26<br>27<br>28<br>29<br>30 | 1  |          |  |  |          | Г  | Г  |  | Г              | 1 |
|             | 27   | V  | 1        |  |  |          | Г  |  |  |                |   |
|             | 28   | 7 7 7                                    | 1        |  |  |          |  |  |  |                |   |
|             | 29   | 1  | 1        |  |  |          |  |  |  |                |   |
|             | 30   | 1  | 1        |  |  | L        |  |  | L  | <u> </u>       |   |
|             | 31   | 1  | 1        | 上  | L  | <u> </u> |  | _  |  |                |   |
| <u> </u>    | 32   | ٧  | 1        | _  | 1_   | <u> </u> | <u> </u>   | <u> </u>   |  | ┞              | l |
|             | 32<br>33<br>34<br>35<br>36   | _  | _        | _  | 1_   | <u> </u> | _  | <u> </u>   | <u> </u>   | <u> </u>       |   |
| <u> </u>    | 34   | $\vdash$                                 |          | _  | ╄  | ₩        |  | <u> </u>   | <u> </u>   |                | 1 |
| _           | 35   | ⊢  | -        | -  | ⊢  | -        |  | $\vdash$   | <u> </u>   | <del> </del> — | l |
|             | 36   | ₩  | $\vdash$ | ⊢  | ┼  | ├        |  | ├-   | ├  |                | 1 |
| $\vdash$    | 37   | ⊢  | ⊬        | ⊢  | $\vdash$   | $\vdash$ | $\vdash$   | ├  | <del> </del>                                     | $\vdash$       | 1 |
| <u> </u>    | 38<br>39   | ╁  | $\vdash$ | $\vdash$   | ╀  | $\vdash$ | ├  | ├  | $\vdash$   | -              |   |
| <del></del> | 40   | +  | $\vdash$ | $\vdash$   | +  | ╁        | -  | $\vdash$   | -  | ├-             | 1 |
| <b> </b>    | 41   | <del> </del>                             | +        | ╁  | 1  | 一        | $\vdash$   | <del>                                     </del> | ╁  | -              | 1 |
| $\vdash$    | 42   | 1  | +        | +-   | $\vdash$   | 1        |  | -  | $\vdash$   | -              | 1 |
| $\vdash$    | 43   | t  | $t^{-}$  | $t^{-}$  | 一  | 1        | <del>                                     </del> | ┪  | <del>                                     </del> | $\vdash$       | 1 |
|             | 44   | 1  | $\vdash$ | $t^-$  | t  | t        |  | $\vdash$   |  |                | 1 |
|             | 45   | T  | t        | H  | <b>†</b>   | $t^-$    |  | $\vdash$   |  |                | 1 |
|             | 46   | Τ  | $\top$   | T  | $\top$   | T        | 1  |  | Т  | $\Box$         | ١ |
|             | 47   | Τ  | T        | T  | T  | 1        | Г  |  |  | $\vdash$       | 1 |
|             | 48   | Π  | Π        | T  |  | Т        |  |  |  |                | 1 |
|             | 49   | Τ  | T        | Τ  |  | T        | Π  | Ī  |  |                | 1 |
|             | 50   | 1  | 1        | 1  | 1  | 1        | $\overline{}$                                    | <del>                                     </del> | $I^{-}$  | П              | 1 |

| Cla      | im             | Date     |  |              |          |              |           |          | $\neg$   |              |
|----------|----------------|----------|--|--------------|----------|--------------|-----------|----------|----------|--------------|
| Final    | Original       |          |  |              |          |              |           |          |          |              |
|          | 51<br>52       | $\dashv$ | -  | -            |          |              | $\exists$ |          |          |              |
|          | 52             |          |  |              |          |              |           |          |          |              |
|          | 53             | _        | $\Box$                                       |              |          |              | _         |          |          | Щ            |
| <u> </u> | 53<br>54<br>55 | $\dashv$ |  |              |          |              | -         | -        |          | $\dashv$     |
|          | 55             | $\dashv$ |  |              | _        |              | -         | -        |          |              |
|          | 56<br>57       | $\dashv$ | -  |              | -        | -            |           |          | $\vdash$ |              |
|          | 58             | $\dashv$ | _  |              |          |              | _         |          |          |              |
| -        | 58<br>59       |          | _  |              |          |              |           |          |          | _            |
|          | 60             |          |  |              |          |              |           |          |          |              |
|          | 61             |          |  |              |          |              |           |          |          |              |
|          | 61<br>62<br>63 |          |  |              |          |              |           |          |          |              |
|          | 63             |          | <u>.                                    </u> | Щ            |          | Ш            |           |          | _        | $\sqcup$     |
| <u> </u> | 64<br>65       |          | _  |              |          |              | _         |          | _        | Н            |
| <u> </u> | 66             | $\dashv$ | _  | H            |          | $\vdash$     | 4         |          |          | $\vdash$     |
| -        | 67             | $\dashv$ | _  | Н            |          | $\vdash$     | -         | _        | -        | $\vdash$     |
|          | 68             |          | _  |              |          |              |           |          | _        |              |
|          | 69             |          |  |              |          |              |           | Г        |          |              |
|          | 70             |          |  |              |          |              |           |          |          |              |
|          | 71             |          |  |              |          |              |           |          |          |              |
|          | 72             |          |  |              |          | Ш            |           |          |          |              |
|          | 72<br>73<br>74 |          |  |              |          |              |           |          |          |              |
|          | 75             | _        |  | _            |          | -            |           | _        | _        | -            |
| <u> </u> | 75<br>76       | -        | _  |              | -        | -            |           | -        | $\vdash$ | H            |
|          | 77             | -        |  | _            | $\vdash$ |              |           |          | $\vdash$ |              |
|          | 78             | _        | _  | ┢            |          |              |           | _        | <u> </u> |              |
|          | 78<br>79       |          |  |              |          |              |           |          |          |              |
|          | 80             |          |  |              |          |              |           |          |          |              |
| L        | 81             |          |  |              |          |              |           |          |          | _            |
|          | 82             |          |  | <u> </u>     |          |              |           | ļ        | <u> </u> | <u> </u>     |
|          | 83<br>84       | _        | -  | $\vdash$     | -        | $\vdash$     | _         | -        | -        | -            |
| -        | 85             | $\vdash$ | -  | $\vdash$     | -        | $\vdash$     | $\vdash$  | -        | $\vdash$ | $\vdash$     |
| -        | 86             | -        | $\vdash$                                     | -            | -        | -            | $\vdash$  | $\vdash$ | -        | -            |
|          | 86<br>87       |          | _  | 1            | $\vdash$ |              |           | $\vdash$ | _        | T            |
|          | 88             |          |  |              |          |              |           |          |          |              |
|          | 89             |          |  |              |          |              |           |          |          |              |
|          | 90             |          |  | L            | <u> </u> | L_           | $\vdash$  | L        | L        | <u> </u>     |
|          | 91             | $\vdash$ | L  |              | $\vdash$ | _            | <u> </u>  | <u> </u> | $\vdash$ | <del> </del> |
|          | 92             | <u> </u> | ļ  | -            | $\vdash$ | -            | <u> </u>  | -        | _        | $\vdash$     |
| -        | 93<br>94       | -        | <u> </u>                                     | ⊢            | ├-       | -            |           | -        | -        | ⊢            |
| $\vdash$ | 95             | H        |  | -            | $\vdash$ | $\vdash$     |           | $\vdash$ | $\vdash$ | $\vdash$     |
|          | 96             |          | -  | <del> </del> | -        | <del> </del> | $\vdash$  | $\vdash$ | $\vdash$ | $\vdash$     |
| <b>—</b> | 97             | T        | _  | 1            | -        |              | $\vdash$  |          | 1        | Г            |
|          | 98             |          |  |              |          |              |           |          |          |              |
|          | 99             |          |  |              |          |              |           |          |          |              |
|          | 100            |          |  | Π            |          |              |           |          |          | Γ            |

| Total   Tota | CI           | -i  |  |  |              |          | \  | _        |          |  | $\neg$   |
|--|--------------|-----|--|--|--------------|----------|--|----------|----------|--|----------|
| 101 102   103 104   105 106   107 108   109 110   111 112   113 114   115 116   117 118   119 120   121 122   123 124   125 126   127 128   129 130   131 132   133 134   135 136   137 138   139 140   141 142   143 144   145 146   147 148  | Ula          |     | Date   |  |              |          |  |          |          |  |          |
| 107<br>108<br>109<br>110<br>111<br>112<br>113<br>114<br>115<br>116<br>117<br>118<br>119<br>120<br>121<br>122<br>123<br>124<br>125<br>126<br>127<br>128<br>129<br>130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   | Final        |     |  |  |              |          |  |          |          |  |          |
| 107<br>108<br>109<br>110<br>111<br>112<br>113<br>114<br>115<br>116<br>117<br>118<br>119<br>120<br>121<br>122<br>123<br>124<br>125<br>126<br>127<br>128<br>129<br>130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |              | 101 |  |  |              |          |  |          |          |  |          |
| 107<br>108<br>109<br>110<br>111<br>112<br>113<br>114<br>115<br>116<br>117<br>118<br>119<br>120<br>121<br>122<br>123<br>124<br>125<br>126<br>127<br>128<br>129<br>130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |              | 102 |  |  |              |          |  |          | _        |  | Ш        |
| 107<br>108<br>109<br>110<br>111<br>112<br>113<br>114<br>115<br>116<br>117<br>118<br>119<br>120<br>121<br>122<br>123<br>124<br>125<br>126<br>127<br>128<br>129<br>130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |              | 103 |  |  | _            |          | _  | _        |          |  | Ш        |
| 107<br>108<br>109<br>110<br>111<br>112<br>113<br>114<br>115<br>116<br>117<br>118<br>119<br>120<br>121<br>122<br>123<br>124<br>125<br>126<br>127<br>128<br>129<br>130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |              | 104 | $\vdash$   |  | _            | _        |  | _        |          |  | $\dashv$ |
| 107<br>108<br>109<br>110<br>111<br>112<br>113<br>114<br>115<br>116<br>117<br>118<br>119<br>120<br>121<br>122<br>123<br>124<br>125<br>126<br>127<br>128<br>129<br>130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148   |              | 105 | _  |  | _            |          |  |          |          |  | $\dashv$ |
| 108 109   110 111   111 112   113 114   115 116   117 118   119 120   121 122   123 124   125 126   127 128   129 130   131 132   133 134   135 136   137 138   139 140   141 142   143 144   145 146   147 148  |              | 100 | ŀ  |  | _            |          |  |          |          |  |          |
| 110   111   112   113   114   115   116   117   118   119   120   121   122   123   124   125   126   127   128   129   130   131   132   133   134   135   136   137   138   139   140   141   142   143   144   145   146   147   148  |              | 108 |  |  | _            | _        | -  |          |          | -  |          |
| 110   111   112   113   114   115   116   117   118   119   120   121   122   123   124   125   126   127   128   129   130   131   132   133   134   135   136   137   138   139   140   141   142   143   144   145   146   147   148  |              | 109 | $\vdash$   | -  | -            |          |  |          |          |  |          |
| 111 112   113 114   115 116   117 118   119 120   121 122   123 124   125 126   127 128   129 130   131 132   133 134   135 136   137 138   139 140   141 142   143 144   145 146   147 148  |              | 110 | $\vdash$   |  |              | _        |  |          |          |  |          |
| 118 119   120 121   122 123   124 125   126 127   128 129   130 131   132 133   133 134   135 136   137 138   139 140   141 142   143 144   145 146   147 148  |              | 111 |  |  |              |          |  |          |          |  |          |
| 118 119   120 121   122 123   124 125   126 127   128 129   130 131   132 133   133 134   135 136   137 138   139 140   141 142   143 144   145 146   147 148  |              | 112 |  |  |              |          |  |          |          |  |          |
| 118 119   120 121   122 123   124 125   126 127   128 129   130 131   132 133   133 134   135 136   137 138   139 140   141 142   143 144   145 146   147 148  |              | 113 |  |  | L            |          |  |          |          |  | Щ        |
| 118 119   120 121   122 123   124 125   126 127   128 129   130 131   132 133   133 134   135 136   137 138   139 140   141 142   143 144   145 146   147 148  |              | 114 | _  |  |              | _        | _  |          |          |  |          |
| 118 119   120 121   122 123   124 125   126 127   128 129   130 131   132 133   133 134   135 136   137 138   139 140   141 142   143 144   145 146   147 148  |              | 115 |  |  | <u> </u>     | _        |  |          |          |  |          |
| 118 119   120 121   122 123   124 125   126 127   128 129   130 131   132 133   133 134   135 136   137 138   139 140   141 142   143 144   145 146   147 148  |              | 116 | <u> </u>   |  | ⊢            | -        | $\vdash$   |          | _        | _  |          |
| 119 120   121 122   123 124   125 126   127 128   129 130   131 132   133 134   135 136   137 138   139 140   141 142   143 144   145 146   147 148  |              | 110 | ├  | _  | ⊢            |          | -  |          |          | _  |          |
| 122<br>123<br>124<br>125<br>126<br>127<br>128<br>129<br>130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148  | -            | 110 | -  |  | ┝            | -        | -  | _        |          | $\vdash$   |          |
| 122<br>123<br>124<br>125<br>126<br>127<br>128<br>129<br>130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148  |              | 120 | -  | $\vdash$   | $\vdash$     |          | $\vdash$   | _        |          |  | $\dashv$ |
| 122<br>123<br>124<br>125<br>126<br>127<br>128<br>129<br>130<br>131<br>132<br>133<br>134<br>135<br>136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148  | <b>-</b>     | 121 | -  | <del> </del>                                     |              | $\vdash$ | $\vdash$   | $\vdash$ |          |  | Н        |
| 133  |              | 122 | <del>                                     </del> | <del>                                     </del> | $\vdash$     |          | $\vdash$   | _        |          |  | П        |
| 133  |              | 123 |  |  | ऻ            |          |  |          |          |  |          |
| 133  |              | 124 |  |  |              |          |  |          |          |  |          |
| 133  |              | 125 |  |  |              |          |  |          |          |  |          |
| 133  |              | 126 | _  |  | _            |          | _  |          |          |  | Ш        |
| 133  |              | 127 | _  | Ļ  | <u> </u>     | <u> </u> |  | _        |          | ļ  | Н        |
| 133  |              | 128 | _  | -  |              | -        |  | _        |          |  | $\vdash$ |
| 133  | ļ            | 129 | _  | ⊢  | <del> </del> | -        | $\vdash$   | -        | -        | ⊢  | Н        |
| 133  | <del> </del> | 130 | <del>  -</del>                                   | -  |              | $\vdash$ | ┢  | ┢        |          | -  | H        |
| 133  | -            | 132 | $\vdash$   | $\vdash$   | $\vdash$     | -        | $\vdash$   |          |          | -  | Н        |
| 136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148  | <del>-</del> | 133 | ┢  | _  | H            | _        | _  |          |          | Т  | Н        |
| 136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148  |              | 134 |  |  | Г            |          |  |          |          |  | П        |
| 136<br>137<br>138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148  |              | 135 |  |  |              |          |  |          |          |  |          |
| 138<br>139<br>140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148  |              | 136 |  |  | 匚            |          |  |          |          |  |          |
| 140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148  |              | 137 | L  | _  | L            | _        | L  | <u>_</u> | <u> </u> | <u> </u>   |          |
| 140<br>141<br>142<br>143<br>144<br>145<br>146<br>147<br>148  |              | 138 | _  | ļ  | ↓_           | <u> </u> | _  | ┡        | <u> </u> | ┡  | $\sqcup$ |
| 141  | <u> </u>     | 139 | ┝  | -  | ┝            | ⊢        |  | ļ        | ┝        | <u> </u>   | $\vdash$ |
| 142<br>143<br>144<br>145<br>146<br>147<br>148  | <u> </u>     |     | ┝  | -  | ⊢            | $\vdash$ | -  | -        | ┝        | ⊢  | Н        |
| 143  | <u> </u>     | 141 | ├-   | $\vdash$   | ┢            | 1        | $\vdash$   | -        | ├─       | 1  | Н        |
| 144  |              |     | <del> </del>                                     | $\vdash$   | -            | -        | $\vdash$   |          | $\vdash$ | $\vdash$   | Н        |
| 145 146 147 148 148 148 148 148 148 148 148 148 148  |              |     | T  | 1  | H            |          | <del>                                     </del> | Т        | _        | <del>                                     </del> | $\vdash$ |
| 146<br>147<br>148  |              |     | $\vdash$   | Τ  | Τ            | T        | $\vdash$   | Γ        | Γ        | Г  | П        |
| 147  |              |     | $I^{-}$  |  |              |          |  |          |          |  |          |
|  |              | 147 | L  |  |              |          |  |          |          |  |          |
| 1440   |              |     |  |  |              |          |  |          |          | Ĺ  |          |
|  |              | 149 |  | Ĺ  |              |          | Ĺ  | L        | <u> </u> |  |          |
| 150  |              | 150 | L_   | L  | <u> </u>     | L        | L  | <u></u>  | L        | <u>L</u> .                                       | L        |